

## THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A device for encoding a datum, the device being operable to encode the datum by effecting a phase difference between one or more first pseudorandom signals and one or more corresponding second pseudorandom signals.

2. The device as claimed in claim 1, wherein the device is operable to use any one of the first 10 pseudorandom signals as a distinct channel that can be selected to encode the datum.

3. The device as claimed in claim 1, wherein the device is operable to use a plurality of the first 15 pseudorandom signals as a single channel that can be used to encode the datum.

4. The device as claimed in any one of the preceding claims, wherein the device is operable to effect 20 the phase difference by controlling a signal generating means, which is arranged to generate the first pseudorandom signals, such that it outputs a symbol of each of the first pseudorandom signals at a predetermined time, wherein the predetermined time results in the phase difference between 25 the symbol and a corresponding symbol in each of the second pseudorandom signals.

5. The device as claimed in any one of the preceding claims, wherein the datum comprises a signal 30 encoded with information.

6. The device as claimed in any one of the preceding claims, wherein the first pseudorandom signals and second pseudorandom signals are in the form of direct 35 sequence spread-spectrum signals.

7. A device for decoding an encoded datum, the

device being operable to decode the encoded datum by determining a phase difference between one or more first pseudorandom signals and one or more corresponding second pseudorandom signals.

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8. The device as claimed in claim 7, wherein the device is operable to use any one of the first pseudorandom signals as a distinct channel that can be selected to decode the datum.

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9. The device as claimed in claim 7, wherein the device is operable to use a plurality of the first pseudorandom signals as a single channel that can be selected to decode the datum.

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10. The device as claimed in any one of claims claim 7 to 9, wherein the device is operable to determine the phase difference by determining a time difference between a symbol of each of the first pseudorandom signals 20 and a corresponding symbol of each of the first pseudorandom signals, wherein the time difference is representative of the phase difference.

11. The device as claimed in any one of claims 7 25 to 10, wherein the datum comprises a signal encoded with information.

12. The device as claimed in any one of claims 7 to 11, wherein the first pseudorandom signals and second 30 pseudorandom signals are in the form of direct sequence spread-spectrum signals.

13. A method of encoding a datum, the method comprising the step of encoding the datum by effecting a 35 phase difference between one or more first pseudorandom signals and one or more corresponding second pseudorandom signals.

14. The method as claimed in claim 13, wherein  
the step of encoding the datum comprises using any one of  
the first pseudorandom signals as a separate channel that  
5 can be selected to encode the datum.

15. The method as claimed in claim 13, wherein  
the step of encoding the datum comprises the step of using  
a plurality of the first pseudorandom signals as a single  
10 channel that can be selected to encode the datum.

16. The method as claimed in any one of claims  
13 to 15, wherein the step of encoding the datum is such  
that the phase difference is effected by controlling a  
15 signal generating means, which is arranged to generate the  
first pseudorandom signals, such that it outputs a symbol  
of each of the first pseudorandom signals at a  
predetermined time, wherein the predetermined time results  
in the phase difference between the symbol and a  
20 corresponding symbol in each of the second pseudorandom  
signals.

17. The method as claimed in any one of claims  
13 to 16, wherein the datum comprises a signal encoded with  
25 information.

18. The method as claimed in any one of claims  
13 to 17, wherein the first pseudorandom signals and second  
pseudorandom signals are in the form of direct sequence  
30 spread-spectrum signals.

19. A method of decoding an encoded datum, the  
method comprising the step of decoding the encoded datum by  
determining a phase difference between one or more first  
35 pseudorandom signals and one or more corresponding second  
pseudorandom signals.

20. The method as claimed in claim 19, wherein the step of decoding the encoded datum comprises the step of using any one of the first pseudorandom signals as a distinct channel that can be selected to decode the datum.

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21. The method as claimed in claim 19, wherein the step of decoding the encoded datum comprises the step of using a plurality of the first pseudorandom signals as a single channel that can be selected to decode the datum.

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22. The method as claimed in any one of claims 19 to 21, wherein the step of decoding the encoded datum is such that the phase difference is determined by a time difference between a symbol of each of the first 15 pseudorandom signals and a corresponding symbol of each of the second pseudorandom signals, wherein the time difference is representative of the phase difference.

23. The method as claimed in any one of claims 20 19 to 22, wherein the datum comprises a signal encoded with information.

24. The method as claimed in any one of claims 19 to 23, wherein the first pseudorandom signals and second 25 pseudorandom signals are in the form of direct sequence spread-spectrum signals.

25. Software, which when executed by a computing device, enables the computing device to carry out the 30 method as claimed in any one of claim 13 to 24.

26. A computer readable medium comprising the software as claimed in claim 25.